



INDUSTRIAL HOUSING DEVELOPMENTS IN AMERICA

A Development of Group Houses

SAWYER PARK
WILLIAMSPORT, PA.

George S. and Lewis E. Welsh
Architects

007.15.7002

By LAWRENCE VEILLER

NATIONAL HOUSING ASSOCIATION PUBLICATIONS

No. 47

Price Ten Cents

May, 1918

105 East 22nd Street, New York City

Reprinted from
THE ARCHITECTURAL RECORD
May, 1918

728.1
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By LAWRENCE VEILLER

Secretary of the National Housing Association

PART III · A DEVELOPMENT of GROUP HOUSES SAWYER PARK · WILLIAMSPORT · PA.

Geo. S. Welsh & Lewis E. Welsh, Architects

THE architects of America are just beginning to discover the advantages of the group house. It has taken them a long time to come to it. Fashions in housing seem to be as strong as in any other phase of human activity; and not only have the architects of America, but the public also until recently, clung with great tenacity to the detached house.

So strong throughout the country has been the feeling that the detached house is the only type of house for an American, that with considerable difficulty has a hearing been had for the claims of the group house, notwithstanding its successful use in Great Britain and on the Continent for many generations.

In the first article in this series we described a development made up entirely of single-family detached houses, that of Eclipse Park, at Beloit, Wis. The present article deals with a similar development made up entirely of group houses designed for the same class of workingman, the high grade mechanic.

One reason that the group house has not been popular heretofore has been because of the fact that it has been associated in the public mind with the "terrace," as it is called in the Middle West, or long row of stereotyped houses, deadly monotonous in appearance, with little architectural style, and consequent-

ly producing a dreary, unpleasing impression.

Whenever one has spoken of group houses the average person has instinctively thought of long rows of the hideous small dwellings of Philadelphia, or of the equally hideous rows of tall New York tenements, or of New York's earlier brownstone fronts. These represent the defects of the group house, not its merits. They are not at all inherent in the type itself. It is just as possible to secure variety in group houses as it is in individual houses; and detached houses can be quite as monotonous as even the Philadelphia row or the New York brownstone front if they are all alike and do not possess beauty of design or line; witness the appearance of any of the earlier so-called "mill villages."

The public is just beginning to have its eyes opened to the fact that it is not a choice between a row of drearily monotonous group houses or of well designed, attractive detached houses. In both cases the question is whether the houses are well designed and pleasing in appearance or whether they are not. The row house of England as developed by the ordinary commercial builder is quite as monotonous and unpleasing in appearance as anything we know of in this country; but the group house of the English Garden Village, on the contrary, is,

as a rule, charming and attractive. It all boils down to a question of intelligent design and good taste.

The advantages of the group house for an industrial housing development inhere in the facts that it is easy to heat; that it costs less to build, and that because of its better proportions it is possible to utilize better design.

Sawyer Park, one of the latest and best industrial housing developments in this country, located at Williamsport, Pa., is unique in that it is a development entirely of group houses.

In the opinion of the writer it is architecturally the best thing in industrial housing that has thus far been done in this country. The houses are attractive in design, picturesque, quaint and with great charm. They are, moreover, well adapted to the needs of the community. They are essentially working-men's houses and have been built at a cost that makes their purchase well within the means of the skilled worker for whom they have been designed.

This latest American Garden Village possesses great interest, not only for the housing reformer, but for the architectural profession, for the business men of the country and for those manufacturers who are seeking to reduce labor turnover and who are finding in improved housing a most potent means of overcoming this serious economic waste.

The development possesses unusual features of interest. It is not directly an employers' enterprise; nor is it, on the other hand, a land speculation scheme. The element of profiteering is entirely absent, as is also the element of paternalism and philanthropy. It is in every respect a citizens' movement.

In the spring of 1917, there being not a single vacant house in Williamsport at that time, the business men of the city, acting through the Board of Trade, made an appeal to the public-spirited citizens of the community, calling their attention to the need which confronted the city and the opportunity that lay before them. As a result, the Williamsport Improvement Company was organized with an authorized capital of \$1,000,-

000, one-half of which was soon subscribed for the purchase of land and the laying out of a model residential community. Some 887 different individuals in Williamsport subscribed to the stock of the new corporation, which definitely limited its dividends to 6%.

One of the things which makes Sawyer Park especially interesting is that it illustrates the possibilities of developments of this kind in the smaller cities of America and also with comparatively small parcels of land. Williamsport is not a great metropolis. It has an estimated population of about 37,000. Nor in this case was there unlimited acreage for the development. City planners, as a rule, advise securing all the land that can be obtained and have laid down the principle that for a development of this kind there ought to be preferably 100 acres available and certainly not less than 50. In this case some 36 acres of old farming land has been utilized. The selection of the land was most fortunate; for the little colony nestles in the slope of a hill which shields the houses in winter from the northwest winds and gives to them the most desirable winds during the hot summer months. In addition, the settlement has very unusual attractions in outlook. It overlooks the river, across which there is the delightful view of Bald Eagle Mountain.

With great intelligence, the developers of the property have followed the natural contours and have utilized the sloping hillside to develop the houses practically to the crest of the hill in attractive terraces, rows of houses rising above others, clinging to the hillside in a way that suggests in their general appearance those attractive crescent terraces of Bath, England. A considerable part of the charm of the Park lies in this attractive grouping of the buildings and the way in which they fit into the natural landscape. This effect is greatly enhanced by the use of gently curving streets wherever possible, preserving at the same time the advantages of the rectangular street plan and fitting it into the street plan of the city itself.

One of the most distinctive features



A CHARACTERISTIC VIEW OF SAWYER PARK.

of the whole colony and to which a large part of the charm is due rests in the fact that the houses have not been arranged in strict rectangular lines, but have been placed at angles, breaking up the monotony of the usual block plan that prevails in most cities. We understand that this method of grouping the houses was viewed in the beginning with grave misgivings by many of the local people. As one of the townspeople put it, "The man who laid out those lots must have been drunk or crazy."

The best city planning principles have been followed. This being a residential development the streets have not been made unnecessarily wide, the 40-foot street prevailing. One thoroughfare which borders the Park on the east, namely, Wildwood Boulevard, is 80 feet in width, and a curving highway known as Park Avenue, which skirts the main residential development on the south, was already established as a 60-foot thoroughfare. With these two exceptions all of the streets in the Park proper are 40-foot streets, thus not only saving money, which is so often wasted in streets of unnecessary width, but also discouraging through traffic from utilizing streets designed purely for residential purposes.

The orientation has been given very

thoughtful consideration. While it has not been possible always to insure every room in every house getting direct sunshine at some hour of the day, owing to the necessity of adapting the development to the contours of the land, the maximum amount of sunshine has been afforded. According to the architect, ninety-seven per cent. (by actual count) of the rooms in the various buildings will have the sun at some hour of the day. Many of the houses face the south. Not only has the orientation been considered, but attractiveness of outlook has had equal consideration, and from practically every house a delightful and charming view over the treetops and across the valley to the surrounding hills is afforded.

The property, while on the edge of the city, is within the city limits and readily accessible by trolley. One line comes direct to the edge of the Park and another within two minutes' walk of it. The heart of the city is not over fifteen minutes away by trolley. Within a radius of a mile there are fourteen large industrial plants employing over 5,000 persons. It is thus possible for practically every one residing in Sawyer Park to walk to his work, even to get home at the noon hour for dinner, if that is desired—all of which means a consider-



A FRINGE OF SHOPS AND APARTMENTS MASKING THE FACTORIES

able saving in carfare, a saving that has been estimated to be equal to the equivalent of one month's rent. Public schools are within easy access. The high school is less than a mile away. Churches, stores and other public facilities are found in the neighborhood; but notwithstanding this, the company contemplates the building of neighborhood shops for the residents of the Park, in which can be found those small stores that are necessary for the needs of a community; in addition, a moving picture theatre and club or assembly rooms in which the social life of the community can be maintained are to be provided. A very attractive building for this purpose, harmonizing in architectural style with the whole park development, has been designed by the architects. While not yet erected, its construction is planned at a later date. Out of the total acreage of 36 acres, $5\frac{3}{4}$ acres have been set aside for recreation and play and school buildings.

The diagram on the opposite page shows in an interesting way the proportion of the land allotted to various purposes. Of the 36.71 acres 16.06 acres or 43.70% is utilized for building lots; 5.71 acres or 15.55% has been reserved for school buildings and recreation space; 6.98 acres or 19.80% it is contemplated to develop with factories; 6.32 acres or

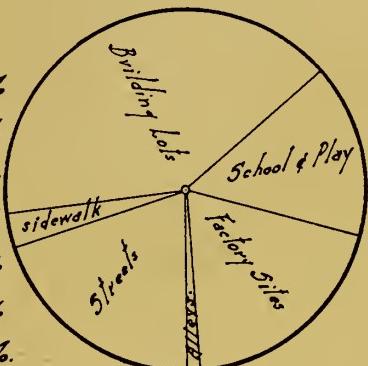
16.50% is being utilized for streets; 1.32 acres or 3.55% for sidewalks, and .32 of an acre or a little less than one per cent. may be devoted to alleys. Following the practice of the best Garden Village developments, the property is being arranged so that when the whole development is completed there will be an average of about eight families to the acre.

To the south of the Park the company owns a strip of land running down to the railroad tracks that is adapted to factory development. In fact there are a number of factories already built in this location and it would be most unwise to develop this portion of the property in any other way. The company is now considering the suggestion, made by the writer when he was at Williamsport recently, of treating this property by developing with factories the major part of it immediately adjoining the railroad tracks, but placing on the Park Avenue end of the property, facing the main residential part of the Park, a fringe of shops and small apartments such as are shown on this page. This will serve a two-fold purpose. It will mask the factories and thus prevent the factory development from interfering with residential values; it will maintain the residential character and appearance of the entire Park; it will place the shops and stores and build-

SAWYER PARK

WILLIAMSPORT PENNS.

Acres devoted to school & play	5.71	15.55%
" in Factory Sites	6.98	19.80%
" " Building Lots	16.06	43.70%
" " Streets	6.32	16.50%
" " Sidewalks	1.32	3.55%
" " Alleys	.32	.90%
Total	36.71	100%.

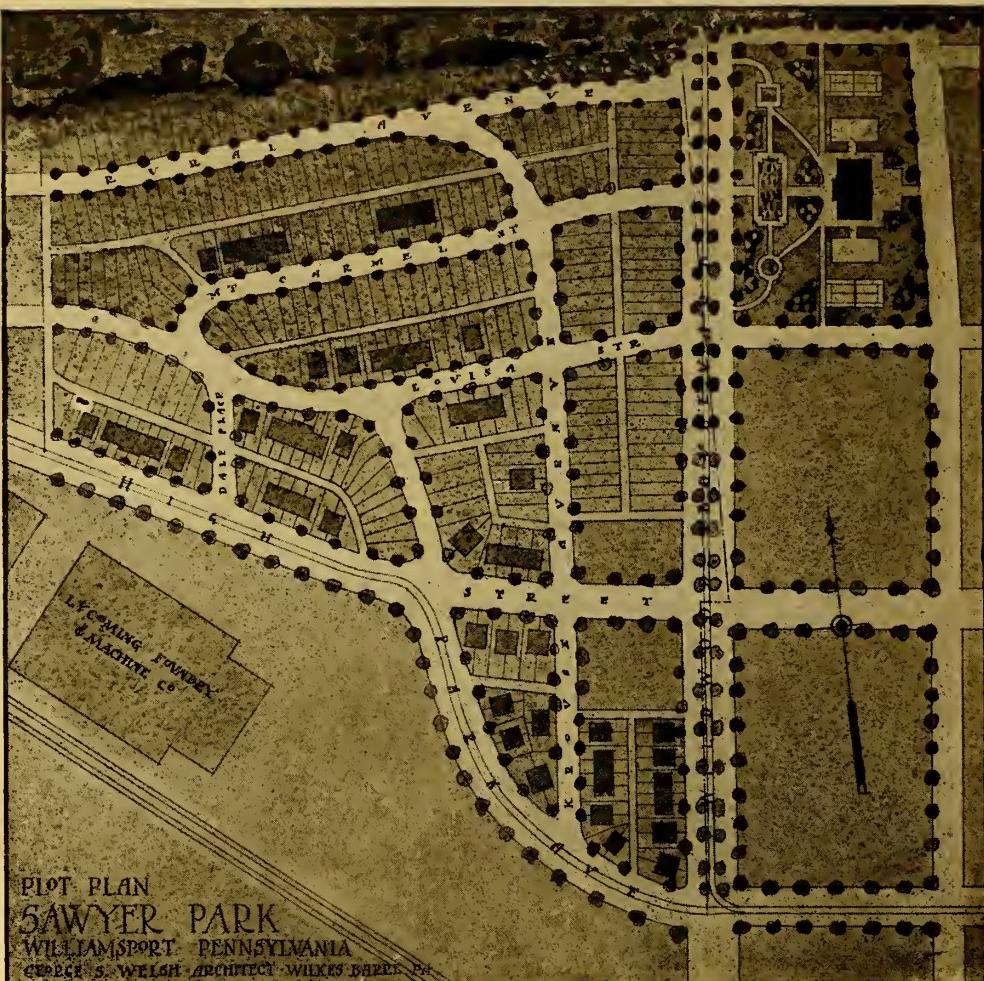


D 1 9 G R G M
showing proportional division
of property.

ITEM	Length.	Cost per lin ft.	TOTAL
8" House sewers.	6120	.90	5508.00
10" " " Manholes No.	1734	1.10	1907.40
House sewer Manholes No.	31	37.00 each	1167.00
15" Storm sewers.	675	1.26	850.50
12" " "	635	1.04	660.40
10" " "	1235	.94	1160.90
8" " "	2334	.82	1913.88
36 Concrete Conduit	893	1.60	1428.80
Storm Sewer Manholes No.	25	47.00 each	1175.00
Catch Basins "	63	33.00 "	2019.00
8" Line to do	1500	.75	1125.00
Walks. 4½" wide	11752	.50	5876
Curb	14552	.55	8003.60
Gutters 24" 5	11752	.28	3290.56
Electric wiring - street lighting			7800.00

DODSON REALTY CORPORATION. BETHLEHEM PA.
GEORGE J. WELSH. ARCHITECT & GEN. MGR. WILKES BARRE PA. 3-410.

TABLE I.—LAND DISTRIBUTION
AND USE. DEVELOPMENT COSTS.



THE CURVING STREETS GIVE CHARM TO THE DEVELOPMENT.

ings of public assemblage in a sense on the outside of the Park and yet at the same time in a convenient location.

PLOT ARRANGEMENT.

With 36 acres available, as already stated, only 16 acres have been developed into building lots, the balance of the property being devoted to streets, sidewalks, recreation, etc. These 16 acres have been divided into some 25 different plots or blocks of varying size and shape, none of them too long, however, nor any of them too wide. On this land it is contemplated erecting altogether houses for 300 families; 100 houses have already been built.

TYPES OF HOUSES.

The houses are of three main types: Two-family houses—semi-detached or double—of which there are two types, Types A and B; four-family houses of Type D, and six-family houses of Type C. The best planned house in the writer's judgment is Type D, the four-family house. This is but two rooms deep and is a house of seven rooms and bath. Each house, there being four houses in a row connected by party walls (see pages 460-461), has a frontage of 22 ft. 3 ins., and a depth of 24 ft. On the ground floor there is a spacious parlor or living room 11 by 15 ft.; opening from



WILDWOOD AVENUE—A BORDERING THOROUGHFARE.
Trolleys Screened by Trees.

this with a large archway and to the rear of it is the dining room, 11 by 12 ft., and to one side of the dining room and at the rear of the entrance hall is the kitchen, 9 ft. by 12 ft. 6 ins. The entrance hall is very attractive, being 7 feet in width, and the stairs open from this and not directly from the living room, thus insuring privacy for the latter. Upstairs on the second floor there are three very attractive bedrooms and a good sized bathroom. The bedrooms are approximately 10 by 11 ft. in size. On the attic floor there is a large bedroom, well ventilated, with windows at both ends.

The rooms in this house are especially well arranged to insure cross ventilation, which is so important in view of recent discoveries as to the value of moving air. Both the parlor and the dining room have windows on two different sides, and are so arranged with reference to each other as to insure a complete circulation of air at all times. The bedrooms of the end houses similarly have windows on two sides, and in the middle houses the rooms are so located as to make cross ventilation possible.

THE TWO-FAMILY HOUSE—TYPE A.

The double or semi-detached house is built on a 16-foot frontage with a 24-

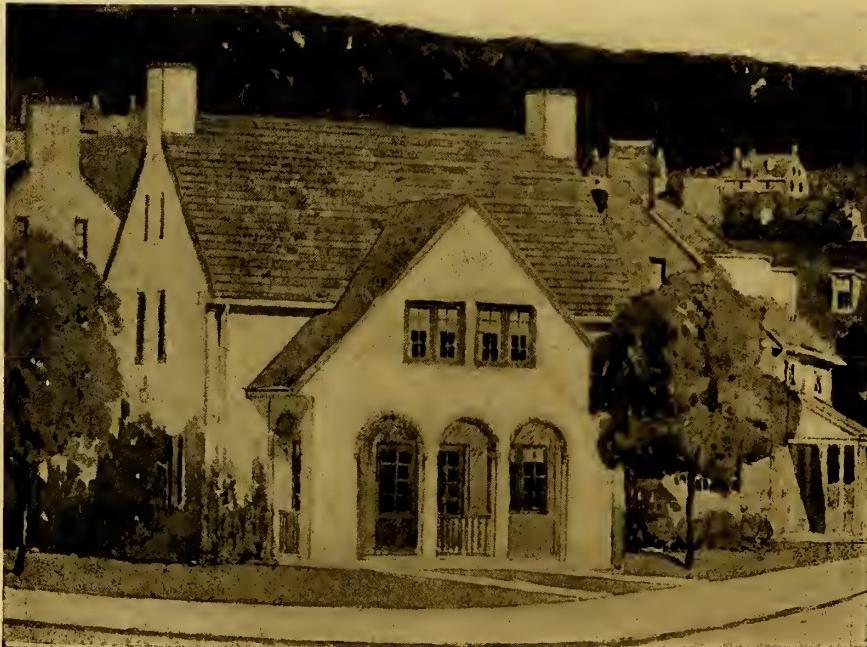
foot depth for the main body of the house and a kitchen extension making the total depth 33 ft. 6 ins. This house contains six rooms and bath—a parlor, dining room and kitchen on the ground floor, two bedrooms and bath on the second floor and a third bedroom in the attic. The size of the rooms and the general arrangement are very similar to the Type D house; all rooms being of generous size, the parlors in this case being 11 ft. 3 ins. by 12 ft. 6 ins., the dining room the same size and the kitchen 8 ft. 6 ins. by 10 ft.

TYPE B.

The other two-family or double house, Type B, is the least desirable type in the development. It is a three-room deep house, whereas all of the other houses are but two rooms in depth; the result is that the middle rooms—on the ground floor the dining room and on the second floor one of the bedrooms—are dependent for their light and ventilation on the somewhat narrow side yards left between adjacent buildings. Otherwise the type of house is similar to the other types already described, though all of the rooms in this type are somewhat smaller than in the others owing to the narrow frontage on which the house is built, each unit in this type having a frontage of 14 feet and a depth of 39 feet.



TYPE A—DOUBLE HOUSE.
Six Rooms and Bath; Unit, 16 Feet by 24 Feet.



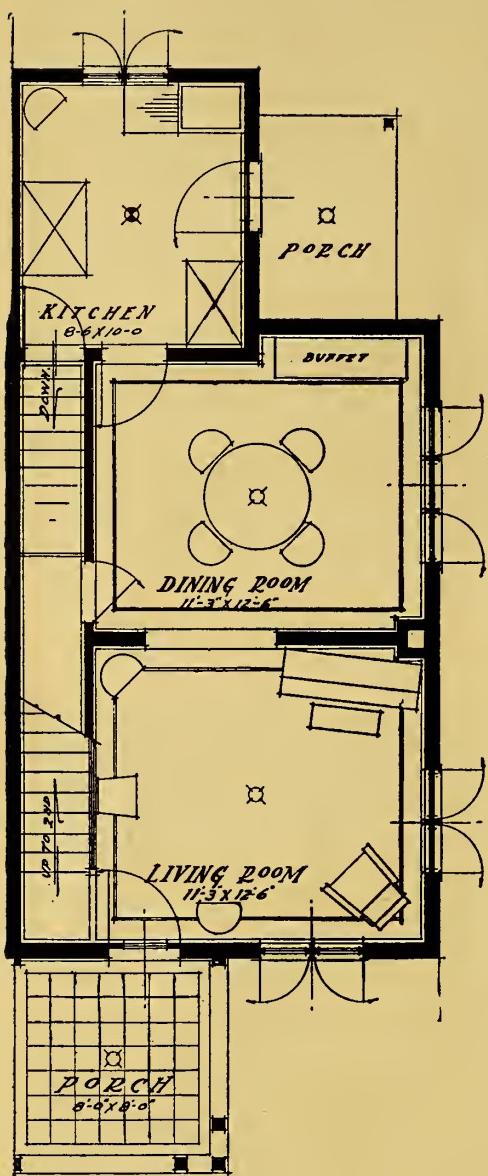
TYPE B—DOUBLE HOUSE.
Six Rooms and Bath; Unit, 14 Feet by 39 Feet.



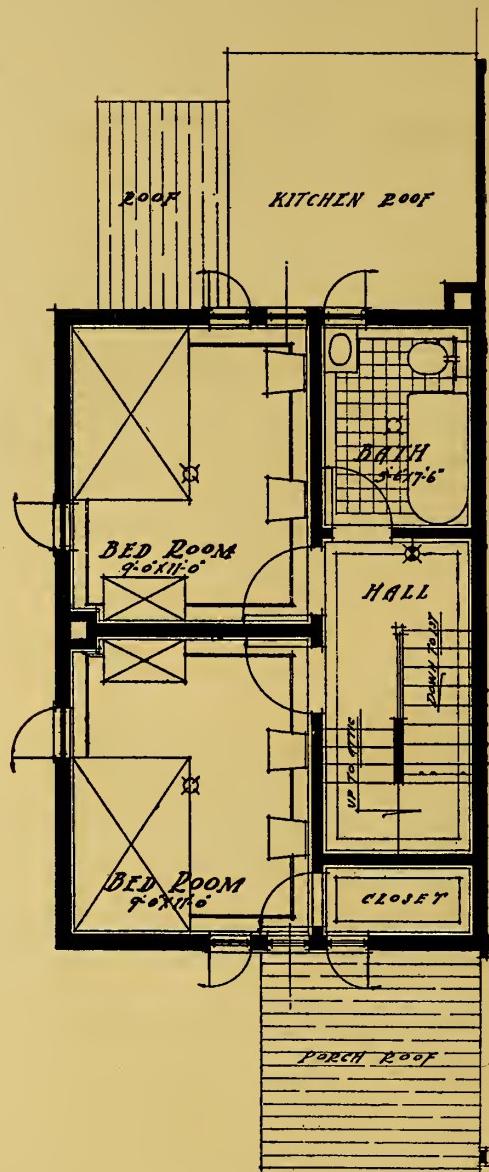
TYPE C—GROUP FOR SIX FAMILIES.
Each Unit, Six Rooms and Bath; House, 16 Feet by 33 Feet 6 Inches.



TYPE D—GROUP FOR FOUR FAMILIES.
Each Unit, Seven Rooms and Bath; House, 22 Feet by 24 Feet. The Best Type.

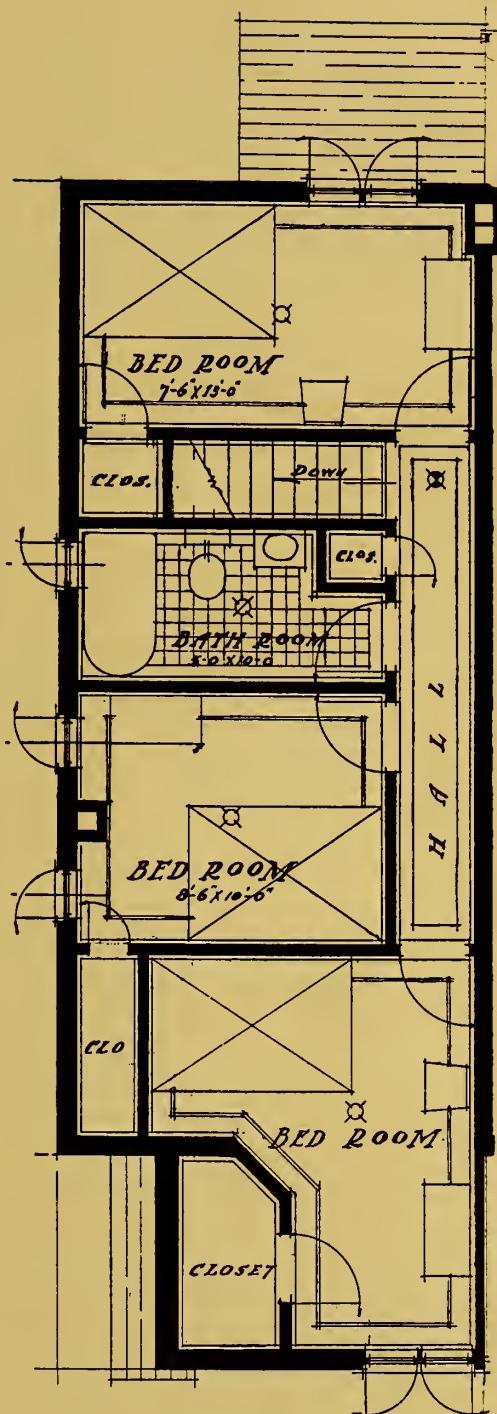
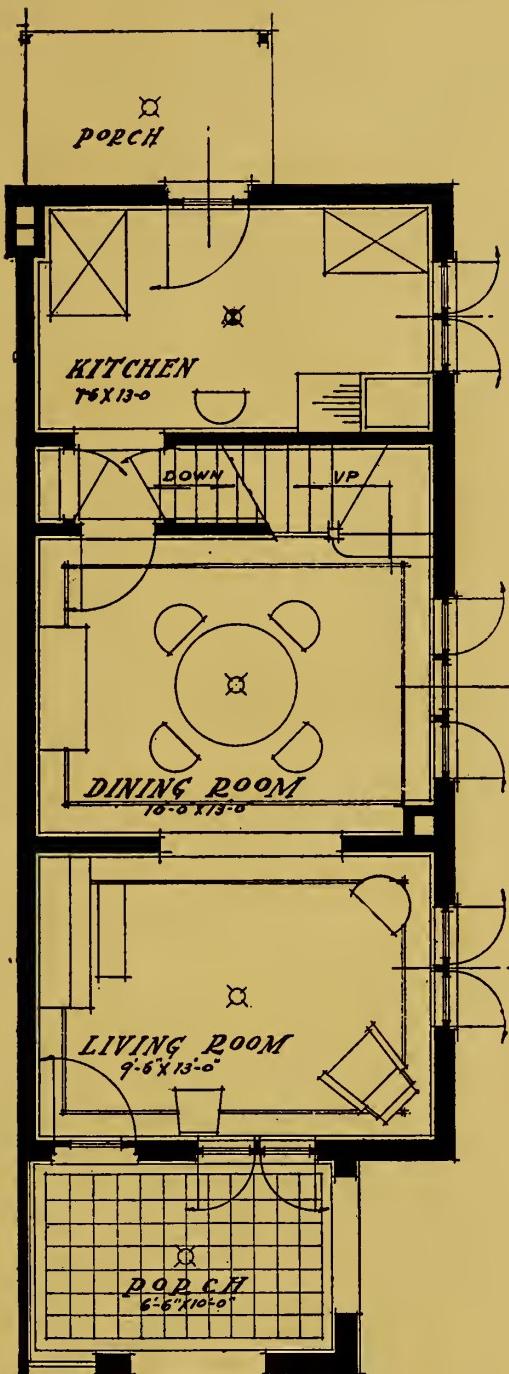


First Floor Plan.



Second Floor Plan.

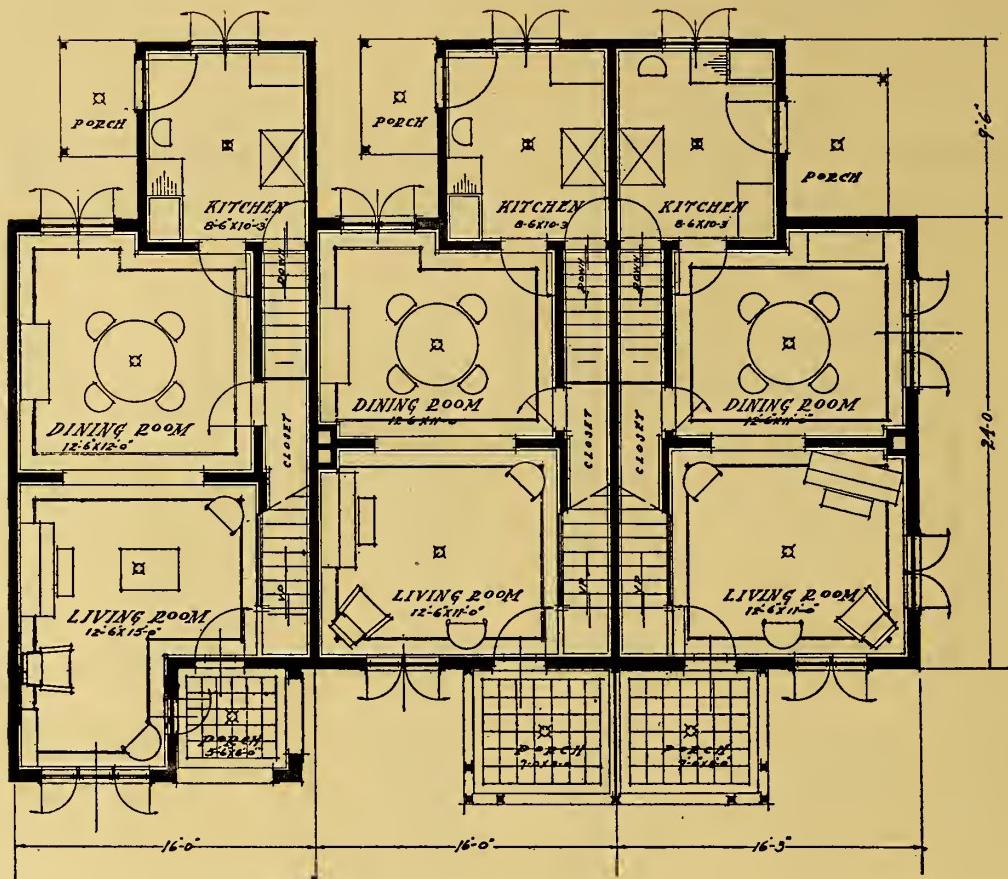
TYPE A — DOUBLE HOUSE.
Each Unit, Six Rooms and Bath;
Each House, 16 Feet by 24 Feet.



First Floor Plan.

Second Floor Plan.

TYPE B — DOUBLE HOUSE.
Each Unit, Six Rooms and Bath;
Each House, 14 Feet by 39 Feet.



First Floor Plan.
TYPE C—GROUP FOR SIX FAMILIES.
Each Unit, Six Rooms and Bath; Each House, 16 Feet by 33 Feet 6 Inches.

THE SIX-FAMILY HOUSE—TYPE C.

The remaining type, or Type C, is a modified form of Type A. The house proper is but two rooms deep, but on the ground floor there is the kitchen extension; the four end houses, two at each end, being of this type. The two middle houses vary slightly, having a front projection which gives much charm to the architectural design of the building and in this case affords rooms of a little larger size. Each unit of this type is built on a frontage of 16 feet, with a depth of 24 feet for the house proper, an additional depth of 9 ft. 6 ins. for the kitchen extension and a further additional depth of 6 feet for the front projection, making the house 33 ft. 6 ins. in

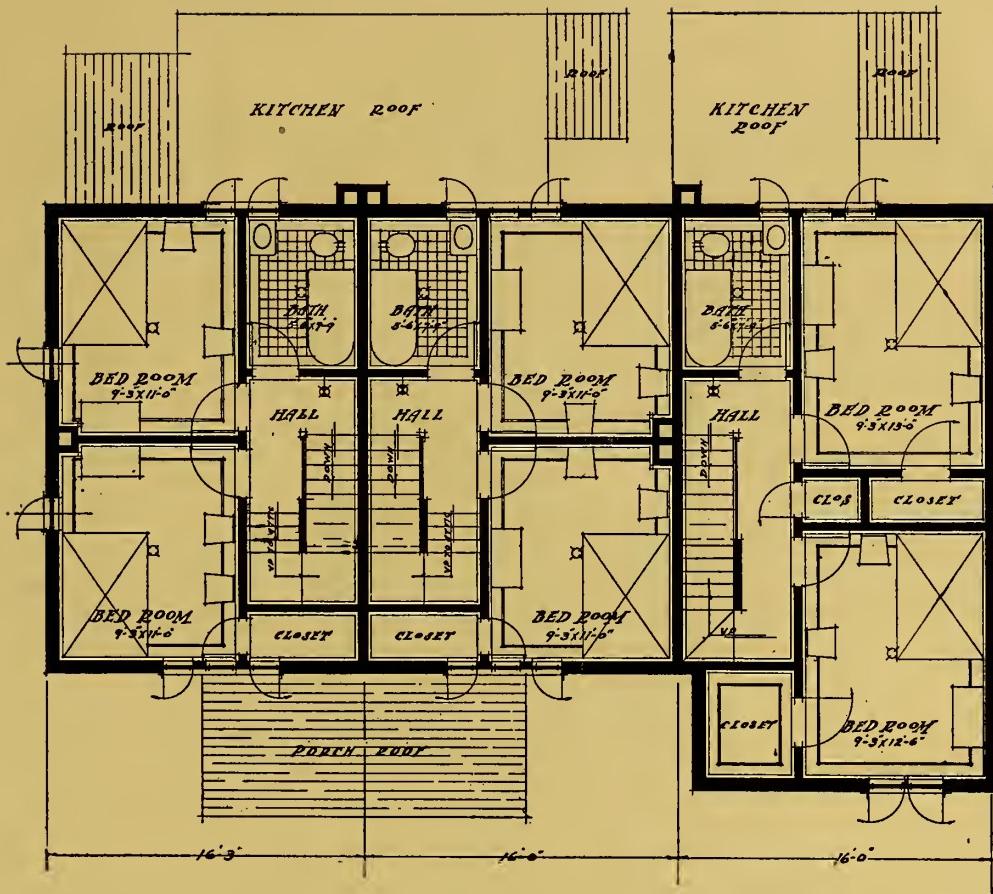
depth at one point and 39 ft. 6 ins. deep at the point of greatest depth.

GROUPING OF HOUSES.

As will be seen we thus have a number of houses two in a row, four in a row and six in a row. Of the 100 houses already built, 26 have been built two in a row, 6 have been built four in a row and 4 have been built six in a row. So much for the arrangement of the houses.

ACCOMMODATIONS OFFERED.

Now with regard to the accommodations offered. Every house has a well lighted and ventilated, concrete floor cellar and a hot air furnace with pipes to each room on the first and second floors. The houses are equipped with



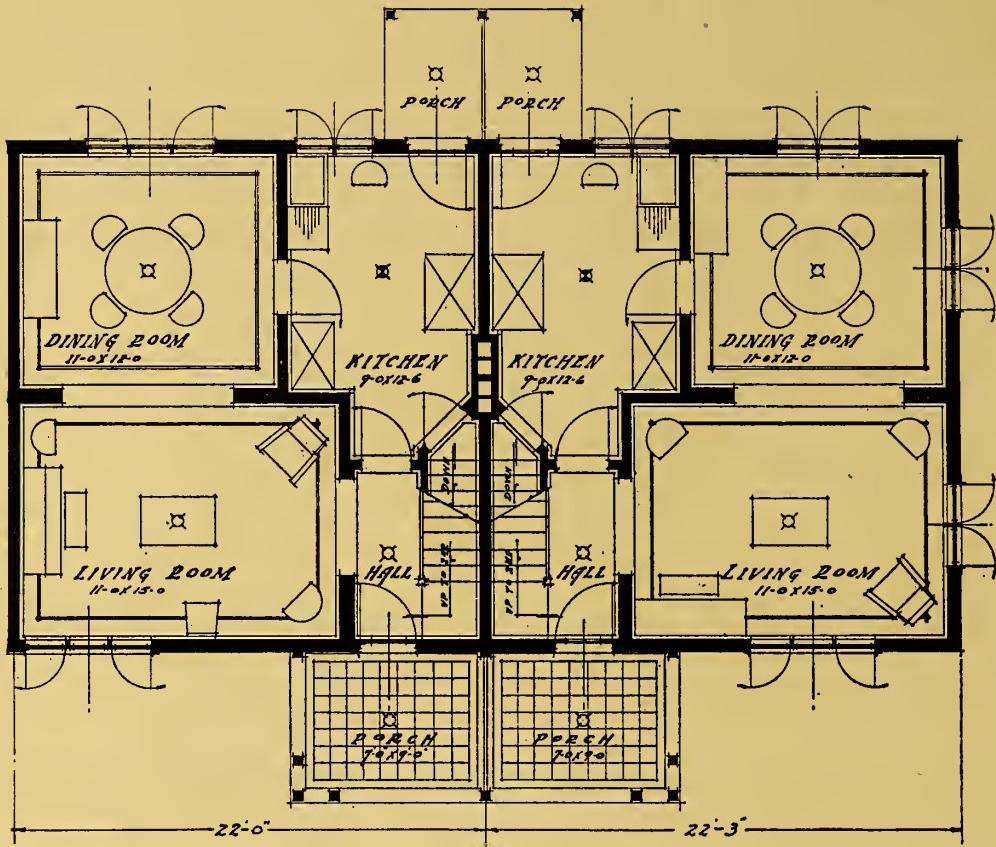
Second Floor Plan.
TYPE C-GROUP FOR SIX FAMILIES.
Each Unit, Six Rooms and Bath; Each House, 16 Feet by 33 Feet 6 Inches.

all modern devices. The bathroom is complete in every respect, with a porcelain tub, washbowl and toilet fixture of modern type. Kitchens are provided with a sink and porcelain washtub, the cover of the washtub acting as a drain-board for the sink. Kitchen dressers have not been provided, but it is stated that these can be furnished where the purchaser desires them at an additional charge of \$25. In the opinion of the writer it would have been wiser to have provided a built-in dresser to contain china, glass and dishes in each kitchen, also a pot-closet, leaving to the tenants the providing of their own kitchen cabinet for the holding of supplies.

Every house has a front porch as well

as a rear entrance to the kitchen. The treatment of the front porch has been handled with great skill. As a rule, the average piazza demanded by American custom destroys the architectural style of the building, but the architects in this case have with very great skill provided the necessary porches without in any way detracting from the appearance of the building. So, on the contrary, they have made the front porch add to the architectural design of the structure.

As well as having modern plumbing every house is equipped with gas pipes and also is wired for electricity. The fixtures are direct, with the exception of the dining room, which is semi-indirect, and the switches control the lights not only in



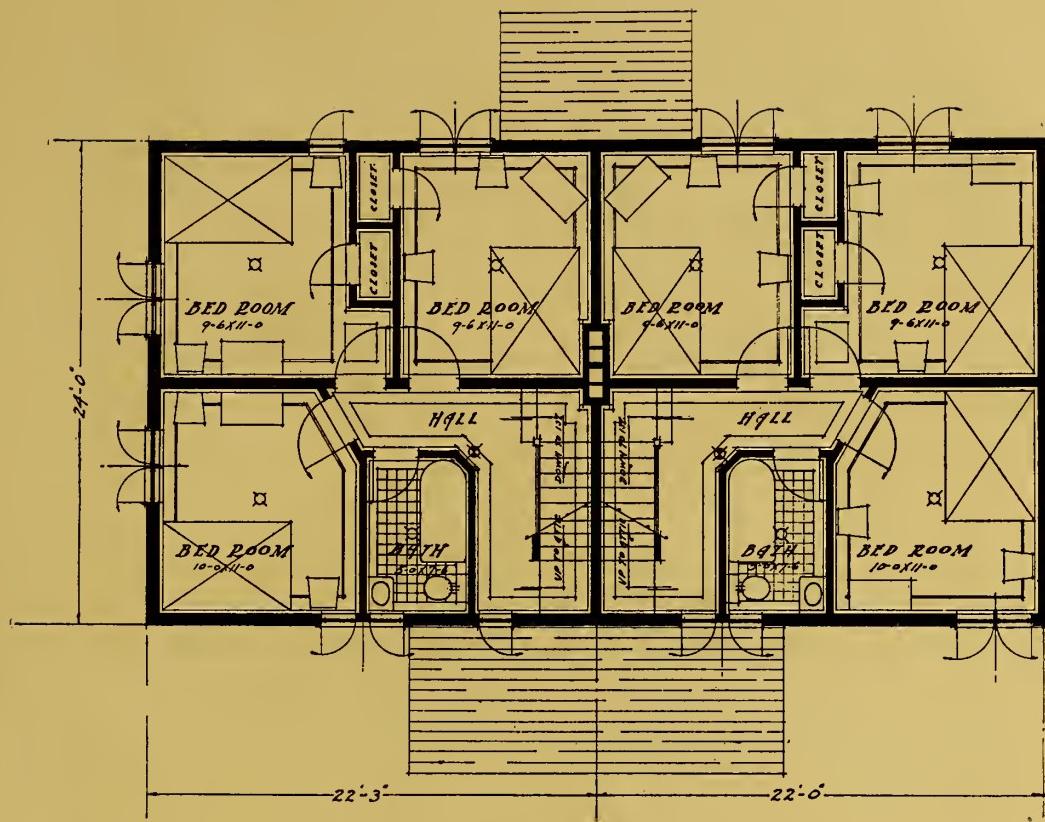
First Floor Plan.
TYPE D—GROUP FOR FOUR FAMILIES.
Each Unit, Seven Rooms and Bath; Each House, 22 Feet by 24 Feet.

the basement, but also on both the front and rear porches. This is a very real comfort to the housewife, who, at night when her husband may be away, or in the late hours of the short winter days, finds considerable concern about opening her door to everyone who knocks upon it. By turning on the switch from the inside of the house she is able to see who is out there before going to the door. It is little things like these that make or break developments of this kind.

The interior finish of the houses is varied—yellow pine, stained mission, golden oak and green. Most of the rooms have been designed so that the usual 9x12 rug, the size that is generally purchased by the workingman, can be easily accommodated and not leave a large floor space to be covered in some supplementary way. To Williams-

port belongs the honor of having discovered the 9x12 rug as a standard in determining the size of rooms in a workingman's dwelling. It is a good, practical method.

Clothes closets are provided in all of the houses. While much more generous provision has been made in this respect than is found in the usual commercially built workingman's dwelling, this is one of the features in which the houses might be improved. In some of the types there are no clothes closets in each of the bedrooms. In one type, the only clothes closet opens off one of the bedrooms, thus forcing other members of the family to go through an occupied bedroom in order to get their clothes. The space provided for linen closets is not always adequate. There should be a linen closet on the second story of every workingman's



Second Floor Plan.
TYPE D-GROUP FOR FOUR FAMILIES.
Each Unit, Seven Rooms and Bath; Each House, 22 Feet by 24 Feet.

dwelling. The workingman's wife, just as much as any other man's wife, wants a linen closet for the storage of linen, blankets and similar household supplies.

TYPE OF CONSTRUCTION.

The houses have all been built with outer walls of fireproof material, there being no frame construction in the development. This means greater permanency, less cost for upkeep and less depreciation. Hollow tile has been used for the cellar walls, foundation side walls and division walls between the houses, thus not only affording greater strength and fire safety but providing the necessary air space so essential for warmth in winter and coolness in summer and protecting against dampness in all seasons of the year. Some of the houses are developed with an artistic stucco finish in white or gray on top of

the hollow tile; others, with pentex treatment. It is believed that because of this method of construction the houses will be less expensive to heat than houses built of frame or of solid walls. The fire risk has thus been reduced to a minimum. In fact the smallest possible amount of wood is used on the exterior of the houses. Even the roof overhangings only being faced with wood, the under side being stucco. The roofs are of slate.

THE ECONOMIC SIDE.

The acid test of a development of this kind is to be found on its economic side. Given good judgment and taste and intelligence, it is always possible to build houses that are attractive architecturally and possess charm; but to build such houses at a cost within the purchasing power of the skilled mechanic is a total-

ly different question. The extent to which this has been done is the real test of such an enterprise. Sawyer Park meets this test and comes out of it with flying colors. It is an object lesson for other communities, to note the business-like way in which the project has been handled from the start. The various prospectuses issued by the Board of Trade, when the project was first suggested in March, 1917, are models in manner of presentation and soundness of treatment that may well be followed by persons contemplating similar developments.*

The lowest priced house has been built so that it can sell for \$2,935, and the highest priced house for \$3,335. The great majority of the houses sell for \$3,185 and \$3,285. This means that a mechanic by an initial payment of \$300 down and a monthly payment of \$30 thereafter can immediately enter into possession of a high-class, modern home of six rooms and bath, and at the end of 10 years own it free and clear. This result has been accomplished through buying material at pre-war prices in car-load lots at wholesale rates at costs much less, of course, than would prevail today. All unnecessary middlemen's profits have been eliminated. The investors in the property have deliberately limited their return to 6% on their money and the contract made with the construction company has been so fair and equitable as to reduce to a minimum the necessary overhead expenses connected with the construction of the houses and the development of the property.

The houses have frankly been built to sell and not to rent. The projectors of the enterprise have been of the opinion that it was more advantageous to the community, as well as to the working-man, that he should own his own home. That a community of home-owners was preferable to a community of "renters."

At the time of going to press with this article the sale of the houses was in progress. The writer believes that ultimate-

ly the company will find, as so many others have found, that there are very distinct advantages in renting dwellings of this character—advantages which outweigh the advantages to be obtained from selling the houses. Management and upkeep are so essential a part of the success of any such scheme that it is an almost universal experience that, if the property is to be kept up to the highest standard, the projectors of the enterprise must retain control. When houses are sold, control is surrendered. Under such circumstances property of this kind is apt to deteriorate and depreciate, especially where restrictions have not been imposed. One workingman to whom a house is sold may have high standards and keep his property in good condition. The man next door to him may be shiftless in character and untidy; he may have no desire to plant a garden, to grow flowers or to keep the lawns trimmed and well cut. Instead he may keep chickens, horses, cows or pigs in his backyard; or he may dump piles of ashes and other refuse material there. He may build an unsightly board fence or one with scraps of sheet iron to fence in his vegetable garden. The effect of all this is to drive the orderly and tidy people away. Thus the whole class of occupancy is in danger of gradually changing, undesirable occupants creeping into the settlement. After the company once sells a house to a man there are no means of preventing him from reselling it.

Under such conditions the Garden Village loses its character; while it still remains a village, the garden vanishes.

This has been the general experience, not only in this country but in Great Britain, an experience that has led to the copartnership scheme of property ownership by which, instead of there being individual ownership of individual houses, and though actually paid for by the occupiers of the dwellings, nevertheless the entire community owns them, so that its proper upkeep and management is secured; for, no individual owns his house but only its value in stock of the company. The result is that all the advantages of the individual's ownership

*See "Prospectus of the Williamsport Realty Company" and "Report of a Proposed Industrial Village at Williamsport" issued by the Board of Trade under date of March 15, 1917.

of property in having a stake in the community are maintained, while the disadvantages just cited are overcome; with the added advantage that the objection to the purchase of houses, which is being more and more often advanced by the workingman, namely, that it interferes with mobility of labor and chains him to his job, is entirely overcome.

It is to be regretted that some such plan was not developed in connection with Sawyer Park; and it is to be hoped that even now restrictions will be imposed in the deed which will protect the purchasers of the houses in the perpetual enjoyment of the amenities of this Garden Village.

CONSTRUCTION SIDE OF THE PROBLEM.

One of the reasons for the success of this development has been the skill and efficiency with which the construction company, in this case the Dodson Realty Corporation of Bethlehem, Pa., has handled the work. The directors of the Housing Company decided wisely at the beginning of the undertaking to make a contract with one concern for the entire development and selected the Dodson Realty Corporation as the company to whom they entrusted the supervision of the entire scheme. The terms on which this contract was made represent a fair basis for similar contracts in similar developments and for this reason the following summary of the terms of the contract is given:

The contract with the Dodson Realty Corporation provides that they furnish plans and specifications for land development, including:

- (a) Plans of streets, lots, parks, etc.
- (b) Locations and grades for streets and sidewalks.
- (c) Cross-section details of streets, sidewalks, curbs, gutters.
- (d) Landscape plans—(street planting).

(e) Plan of street lighting system.

It is agreed that in case the contract is cancelled by either party, the plans of Dodson may be used for Williamsport, on the basis of 4% for originals and 2% for repeats without superintendence on the cost of construction, on which cost of construction no commission has been paid to Dodson.

Dodson further agrees to perform the following services, for which he receives a percentum on expenditure for construction as shown below:

(a) Prepare four sets preliminary plans of land improvements and houses, showing location of houses on plot plan.

(b) Furnish four sets of detailed plans and specifications for land improvements and houses when preliminary plans have been approved.

(c) Provide an experienced field superintendent, who shall be in constant attendance during the progress of the physical operation, and provide such other assistants as may be required for efficient supervision, direction and administration, beyond recognized duties of the contractor.

(d) Examine all proposals, estimates and contracts in connection with the work, and give Williamsport the benefit of Dodson's experience in all matters pertaining to the operation.

(e) Have its representative, experienced in various branches of the work being done, visit the operation from time to time, and make suggestions for the general welfare and progress of the operation.

Williamsport agrees to pay Dodson for its services under this contract a percentage of the amounts expended for materials and labor which actually enter into construction during the term of this agreement upon the following basis:

Ten per cent. of a maximum of \$200,000, so expended during the first year of this agreement, or until \$200,000 is so expended.

Five per cent. of such amounts in excess of \$200,000, so expended during the duration of this agreement.

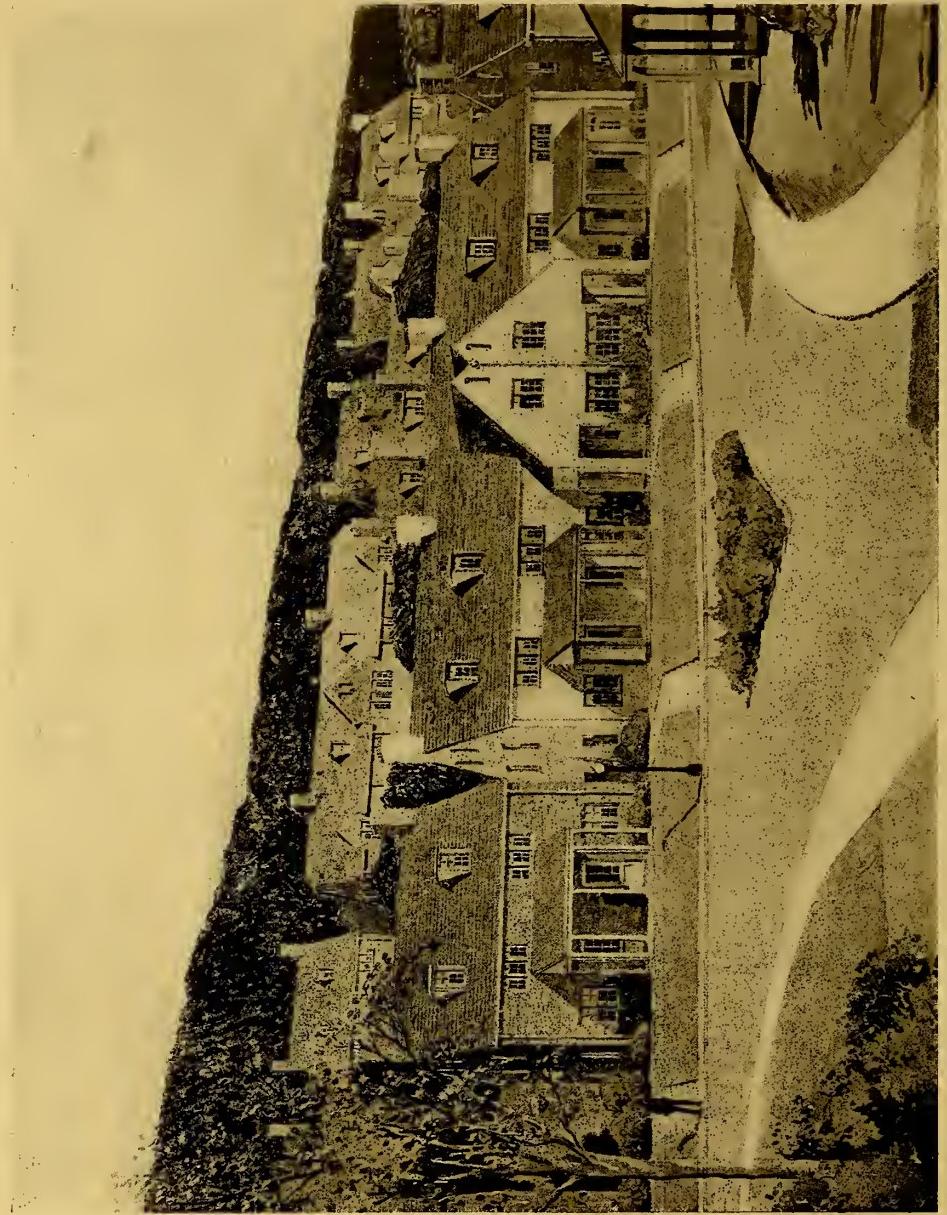
Williamsport shall pay Dodson the amount specified above in manner following:

(a) \$2,000.00 when preliminary drawings for land improvements and house plans are approved.

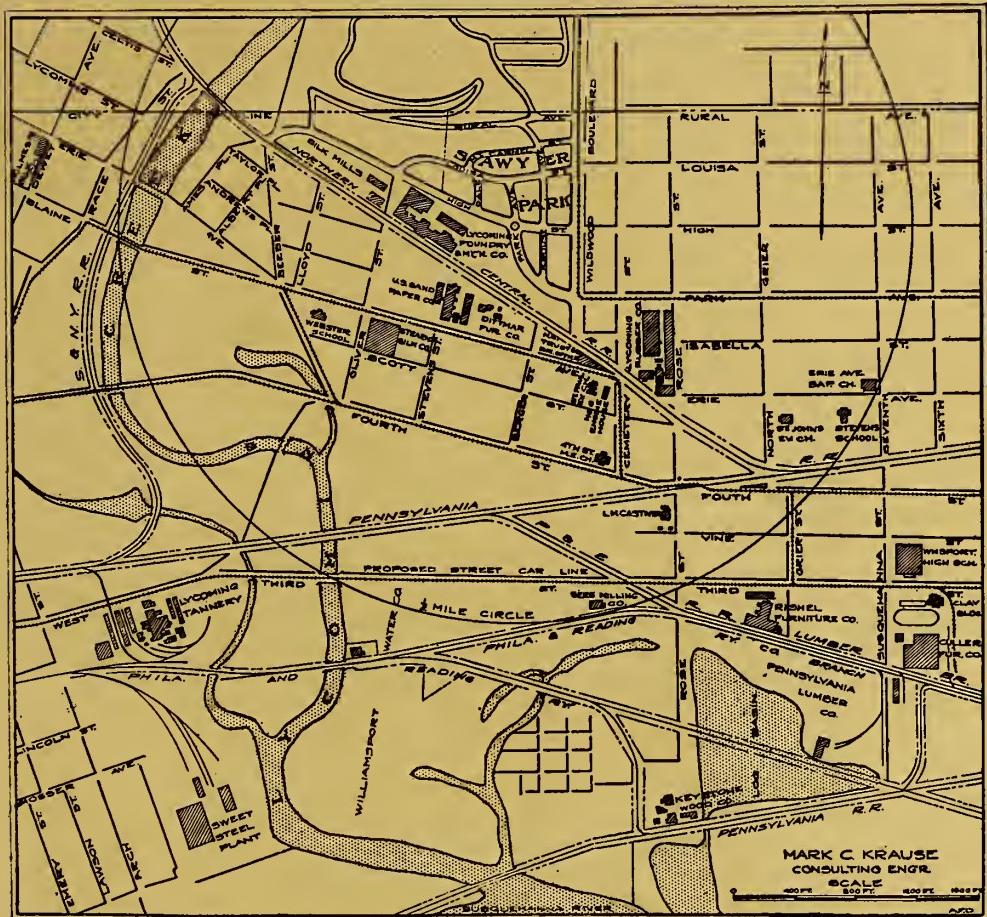
(b) \$5,000.00 when detailed plans and specifications for land improvements and houses are completed and approved.

(c) 6½% of expenditures for materials as shown by the bills when and as they are checked into construction account, and 6½% of labor payrolls when and as they are reported as having been paid, until such time as said materials and labor accounts amount to the sum of \$200,000. After the first \$200,000 have been expended, and during the continuation of this agreement, 5% of such amounts so expended or charged shall be paid in the same manner and form.

It appears from a perusal of these terms that all details of the enterprise, after initial decisions have been reached, such as furnishing of expert architectural service, of the city planning services and



THE TERRACES CLINGING TO THE HILLSIDES ADD
TO THE CHARM AND GIVE ATTRACTIVE OUTLOOK.



SAWYER PARK IS ACCESSIBLE TO THE HEART OF THE CITY.
Map Showing a Half Mile Radius.

of all that usually goes with a development from acreage property into building sites, have been placed in one hand, thus eliminating unnecessary middlemen's profits and reducing overhead charges to an absolute minimum, at the same time affording to the contractor a proper reward for his services.

An interesting commentary on how the war has affected building is found in the statement of the architect that he closed a contract for 50 houses similar to Type D on April 16th, at a price \$269 per dwelling for material and \$208 per dwelling for labor, or a total increase of \$477 per dwelling over the cost of these buildings built a year ago. Some of this advanced cost was due to different costs in a different locality.

It is interesting to note that this village of 100 houses was under roof in six months' time and that it had been brought to completion in a reasonable time notwithstanding the unanticipated difficulties of the extreme weather encountered during last winter. The building company has not only furnished unusual intelligence and skill in its work, but has also established standards in methods of record keeping and presentation of facts which may well serve as a model for similar undertakings. Through the courtesy of the Dodson Realty Corporation we are able to present here three statistical charts showing various phases of the costs that entered into this project. Table I shows what may be termed the Development Costs, not only in totals, but

also on a unit basis of running foot cost. Thus we are able to see at a glance the cost of house sewers per running foot, or storm sewers, of sidewalks, of curbs, of gutters, of electric wiring and of all the elements that enter into the development of property of this kind.

Table III shows in a similarly striking way the cost of labor and material of various kinds for one dwelling, based on the cost of 100 dwellings. This is an impressive, graphic presentation and is invaluable to persons projecting similar enterprises, in affording a basis of what such costs should be.

Here we have presented under the heading of "Material" the actual cost per house of the excavation, concrete, tile work, rough lumber, finished lumber, plaster, painting, slate roofing, sheet metal, hardware, electric work, heating, plumbing, hauling, structural steel and miscellaneous. Under each one of these various categories in parallel columns are presented the costs for labor for one house, not only the cost, but also the number of hours of labor taken in each kind of work; from which it appears that the average dwelling containing 13,600 cubic feet was built at a rate of 14.6 cents per cubic foot, not including, however, contractor's profit nor architect's fees nor certain extras such as cement floors, gas range, kitchen cabinet and medicine cabinet. This would give the average cost of a house without the contractor's profit in round figures at \$2,000 (\$1,985.60).

Table IV shows in a comparative way the relative cost of labor and material entering into each one of these various categories, with the percentage of the total cost of each; thus we note that the tile work, for example, was 24.8% of the total cost of the building and that of this cost materials constituted 63% and labor 37%.

Of course to these actual costs of the building must be added the overhead charges, interest on the money invested and the important cost of land and land development, especially the latter, as well as the carrying charges on the buildings during the ten-year period of sale.

LAND COST.

The facts with regard to the land cost and the cost of developing the acreage property into suitable sites are singularly instructive. The land, amounting to 36.71 acres, was purchased for \$23,235, giving a cost of raw land of \$636 an acre. To develop 24 acres of this land cost approximately \$2,000 an acre as follows:

Cost per acre for House Sewer....	\$405.64
" " " Storm Sewer	385.24
" " " Sidewalks	236.50
" " " Curbing	333.48
" " " Gutters	137.10
" " " Electric Lighting.	106.66
" " " Streets	630.00
" " " Alleys	43.00
" " " Planting	32.66

Total cost per acre.....\$2,311.28

The city will refund for lights, street intersections, etc., making the cost approximately \$2,000 per acre or \$166 per lot, not including carrying charges or overhead.

16.00 acres in lots.

7.64 acres in streets.

.32 acres in alleys.

23.98 or approximately 24 acres in above estimate.

or approximately 304 lots in above estimate.

12 lots to an acre.

Total length of streets, 7,740 feet.

Total length of alleys, 4,140 feet.

Total length of sidewalks, 11,752 feet (4½ ft. wide).

Our single-tax friends, who are so wont to hold that low land cost is the solution of the housing problem and that the keeping of land out of use is responsible to so large an extent for the inability to develop workingmen's dwellings at a price within the purchasing power of the workingman, should take to heart and ponder these figures, for they will then discover what has been patent for many years to all persons who have had experience in developing acreage property, that the heavy cost is not in the cost of the land, but in the cost of developing that land.

Could this cost of developing property—of building sewers, laying sidewalks, curbs and gutters, of installing electric lights and building streets and alleys—

SAWYER PARK

WILLIAMSPORT PENNA.

CHART SHOWING THE AVERAGE COST OF LABOR & MATERIAL
FOR ONE DWELLING, BASED ON 100 DWELLINGS.

Item.	Cost	MATERIAL	Hours	Cost	LABOR
Excavation			139	41.90	
Concrete	9.00		42	15.15	
Tile work	312.45		297	178.28	
Rough Lumber	160.10		306	140.56	
Finished Lumber	173.14		217	99.75	
Plaster	69.14		172	91.06	
Painting	19.22		70	39.41	
Slate roofing	39.50		63	21.29	
Sheet Metal.	15.32		12	5.00	
Hardware	35.55				Included in carpenter work
Electric	46.10		35	12.00	
Heating	66.90		22	9.70	
Plumbing	168.38		154	70.87	
Hauling			90 cu. ft.	89.90	
Structural Steel.	682.00				
Miscellaneous	12.90		75	30.00	
Total	1134.60			1614.850.93	

NOTES

The above figures do not include contractors profit nor architects fees.
 " " " " " cement floors ----- Add 150% for same.
 " " " " " gas range ----- " 35" " "
 " " " " " Kitchen cabinet ----- " 25" " "
 " " " " " Medicine ----- " 7" " "

Average dwelling contains 13600 cu. ft. Cost 14.6¢ per cu. ft.

DODSON REALTY CORPORATION BETHLEHEM, PA.
 GEORGE S. WELSH, ARCHITECT & GEN. MGR. WILKES-BARRE, PA. 3-25-18

TABLE III.—COST CHART,
LABOR AND MATERIALS.

S A W Y E R P A R K

WILLIAMSPORT PENNA

CHART SHOWING COMPARATIVE COST OF LABOR & MATERIAL
ALSO PERCENTAGES OF SAME FOR ONE DWELLING BASED ON 100 DWELLINGS.

Item	LABOR	MATERIAL	% TOTAL COST	% LABOR	% MATERIAL
Excavation	■		2.10	100	
Concrete	□		1.2	63	37.
Tile work	■■■■■		24.8	37.	63.
Rough Lumber	■■■■■		15.1	46	54.
Finished Lumber	■■■■■	■	13.75	37	63.
Plaster	■■■		8.	57.	43.
Painting	■		2.85	67.	33.
Slate roofing	■■		3.6	41.	59.
Sheet Metal.	□		1.	24	76
Hardware	■■		1.75		100
Electric	■■		2.8	20	80
Heating	■■■		4.	13	87
Plumbing	■■■■■		12	30	70
Hauling	■■■		4.6	100	
Structural Steel.	□		.3		100
Miscellaneous	■■		2.15	70	30
Total.			100.7	43%	57.7

DODSON REGALY CORPORATION, BETHLEHEM PA
GEORGE S. WELCH, ARCHITECT & GEN. MGR. WILKES-BARRE PA. 3-25-18.

TABLE IV.—RELATIVE COSTS,
LABOR AND MATERIALS.

have been defrayed by the City of Williamsport *in toto* it would have been possible to have sold these houses to the workingman at a materially lower rate.

TO SUM UP.

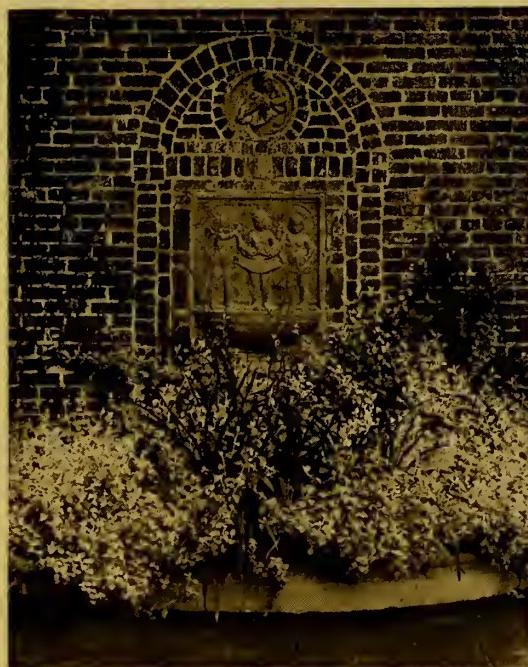
Sawyer Park is a very distinctive achievement of which the City of Williamsport may well be proud. The city owes a debt of gratitude to the men of vision and courage who undertook this project in the face of the opposition and conservatism which usually prevail in all communities.

It is the nearest approach that this country has to the best English Garden Village developments.

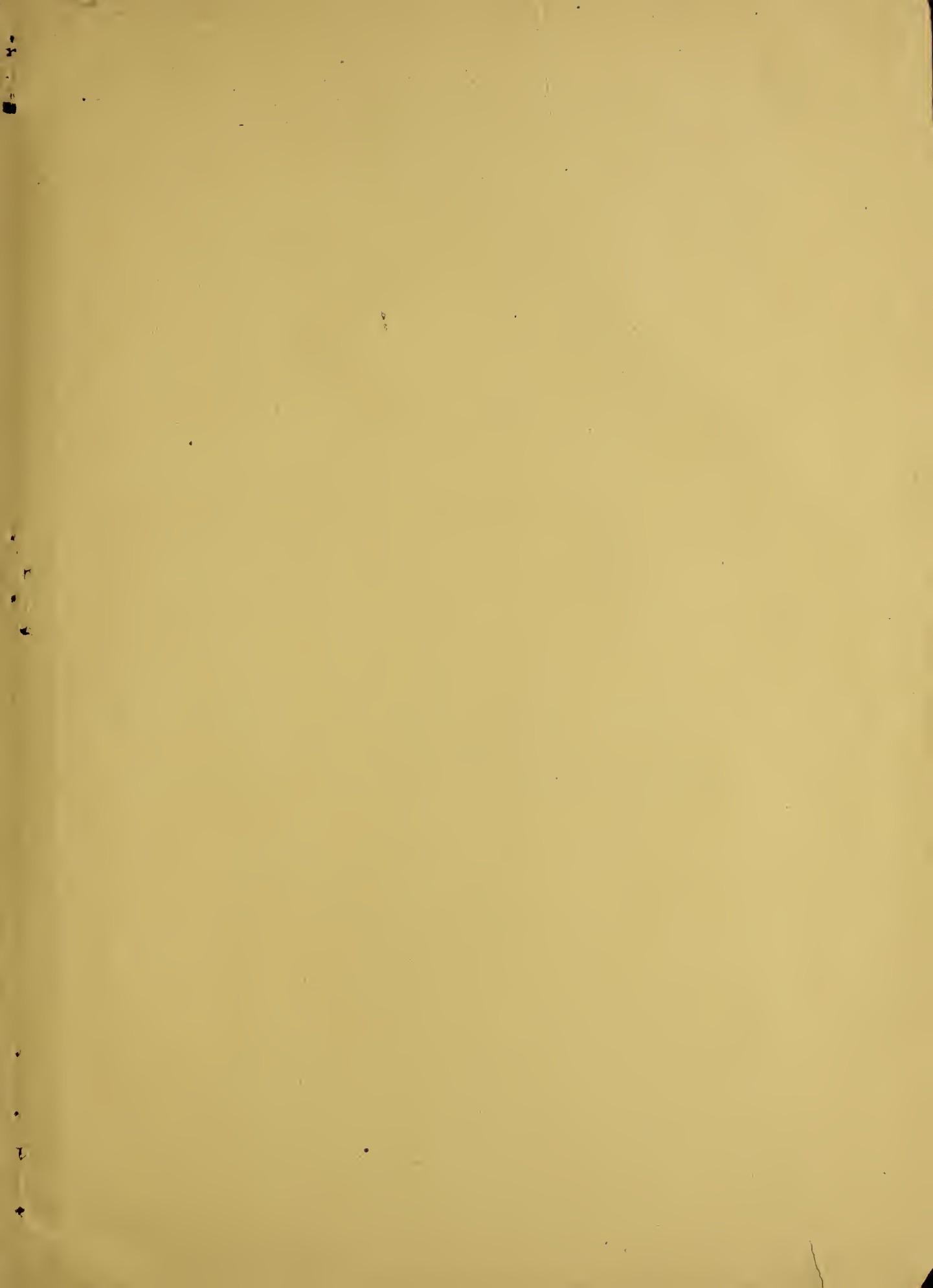
It is a genuine Garden Village, architecturally attractive, with buildings that possess charm and distinction.

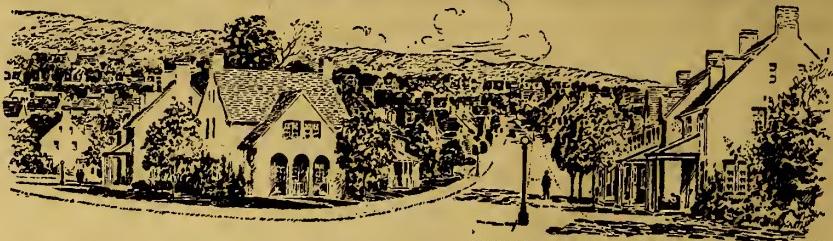
The houses are well and substantially built at a minimum cost, well within the purchasing power of the skilled worker. The development follows the best city planning practice.

It is on a scale sufficiently small to make similar development possible in other communities throughout the country, while the methods which have been employed by the business men of Williamsport in organizing and carrying out the project, the terms of the contract with the construction company and the methods employed by that company in carrying on the work and in keeping track of costs and other records of the expense of the development may well serve as models for similar enterprises.



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BEAUTIFUL SAWYER PARK AS IT WILL LOOK WHEN COMPLETED

BUY A HOME IN SAWYER PARK NOW At Pre-War Prices—On Easy Terms



OZY, comfortable homes, exactly as are shown here, are now ready for occupancy and offered for sale at very moderate pre-war prices and on the most liberal terms. If you ever contemplate buying a home (and every man should), this is your opportunity to own one in a community where every convenience has been provided for you and values are bound to increase. The Williamsport Improvement Company, which is com-

posed of 887 public-spirited citizens, stands back of every house that is built at Sawyer Park and guarantees the honesty of its construction. Compared with present day prices you get considerably more than a dollar's worth of value for every dollar invested. All materials were bought in carload lots at pre-war wholesale prices, which were considerably below prevailing costs to-day and this saving is passed along to the man who buys a home in Sawyer Park.

Think of It, a Fine Home at \$2,935 to \$3,285



Type "A" Two-Family House, Six Rooms and Bath to a Side

The Terms Are Easy

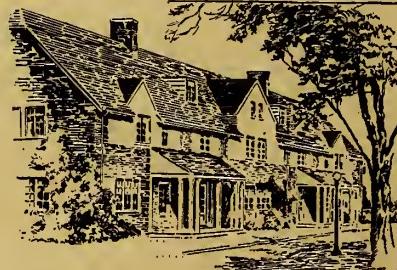
All that is required of the purchaser of a home at Sawyer Park is that he pay one per cent of the sale price at the beginning, the balance to be paid for in monthly installments, the interest being at the rate of one per cent, of purchase price until the entire indebtedness is wiped out. For example on a \$3,000 house the cash payment would be \$300, and the monthly installments would be \$30. You are given immediate possession of the house as soon as the first down cash payment is made. You then have a home of your own.



Type "B" Two-Family House, Six Rooms and Bath to a Side



SIX-FAMILY HOUSE, TYPE "C" EACH HAS SIX ROOMS AND BATH



FOUR-FAMILY HOUSE, TYPE "D" EACH HAS SEVEN ROOMS AND BATH

Williamsport Improvement Company

Any Member of the Sales Organization Will Give Detailed Information Upon Request

JESSE S. BELL, Sales Manager
317 Pine Street
EMERY REAL EST. & INS. AGENCY
48 West Fourth Street

SWARTZ & SHEA
4 West Market Square
ABE HART
Hart Building

PUREY & CO
347 Pine Street
NEWCOMER & RILEY
2007½ West Fourth Street

E. W. COLE & CO.
335 Pine Street
SFENCE W. HILL & SON
332 Pine Street